

SECTION 09220
PORTLAND CEMENT PLASTER

PART 1 - GENERAL

0.1 DESCRIPTION OF WORK

- A.** Work Included: This Section specifies the following items:
1. Exterior Portland cement plasterwork (stucco) with integral color on metal lath.
- B.** Items To Be Installed Only: Install the following items as furnished by the designated Sections:
1. Section 15400 - PLUMBING SYSTEMS:
 - a. Access doors in plaster assemblies.
 2. Section 15500 - FIRE PROTECTION:
 - a. Access doors in plaster assemblies.
 3. Section 15600 - HEATING, VENTILATING, AND AIR CONDITIONING:
 - a. Access doors in plaster assemblies.
 4. Division 16 - ELECTRIC:
 - a. Access doors in plaster assemblies.
- C.** Related Work: The following items are not included in this Section and will be performed under the designated Sections:
1. Section 05400 - COLD-FORMED METAL FRAMING; steel studs that support lath and Portland cement plaster.
 2. Section 06100 - ROUGH CARPENTRY; wood furring included in Portland cement plaster assemblies.
 3. Section 07210 - BUILDING INSULATION; thermal insulations included in Portland cement plaster assemblies.
 4. Section 07270 - AIR AND VAPOR BARRIER SYSTEM; air and vapor barriers in Portland cement plaster assemblies.
 5. Section 07920 - JOINT SEALANTS; sealants installed with exterior Portland cement plaster.

0.2 SUBMITTALS

- A.** Product Data: For each type of product indicated.
- B.** Shop Drawings: Show locations and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other work.

- C. Samples for Verification: For each type of finish coat indicated; 12 by 12 inches and prepared on rigid backing.

0.3 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1.

0.4 DELIVERY, STORAGE, AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

0.5 PROJECT CONDITIONS

- A. Comply with ASTM C 926 requirements.
- B. Exterior Plasterwork:
 - 1. Apply and cure plaster to prevent plaster drying out during curing period. Use procedures required by climatic conditions, including moist curing, providing coverings, and providing barriers to deflect sunlight and wind.
 - 2. Apply plaster when ambient temperature is greater than 40 deg F.
 - 3. Protect plaster coats from freezing for not less than 48 hours after set of plaster coat has occurred.
- C. Factory-Prepared Finishes: Comply with manufacturer's written recommendations for environmental conditions for applying finishes.

PART 2 - PRODUCTS

0.1 METAL LATH

- A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.

0.2 ACCESSORIES

- A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.
- B. Zinc and Zinc-Coated (Galvanized) Accessories: ASTM A 653/A 653M, G60 zinc coating.

0.3 MISCELLANEOUS MATERIALS

- A.** Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B.** Bonding Compound: ASTM C 932.
- C.** Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of not fewer than three exposed threads.
- D.** Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.
- E.** Isolation Strip at Exterior Walls: ASTM D 226, Type I (No. 15 asphalt felt), unperforated.

0.4 PLASTER MATERIALS

- A.** Portland Cement: ASTM C 150, Type I, white color for finish coats.
- B.** Plastic Cement: ASTM C 1328.
- C.** Colorants for Job-Mixed Finish-Coats: Colorfast mineral pigments that produce finish plaster color to match Engineer's sample.
- D.** Lime: ASTM C 206, Type S; or ASTM C 207, Type S.
- E.** Sand Aggregate: ASTM C 897.
- F.** Ready-Mixed Finish-Coat Plaster: Mill-mixed Portland cement, aggregates, coloring agents, and proprietary ingredients.
 - 1. Available Products or equal:
 - a. California Stucco Products Corp.; Conventional Portland Cement Stucco.
 - b. ChemRex; Thoro Stucco.
 - c. Florida Stucco Corp.
 - d. United States Gypsum Co.; Oriental Exterior Finish Stucco.
 - 2. Color: As selected by Engineer from manufacturer's full range.

0.5 PLASTER MIXES

- A.** General: Comply with ASTM C 926 for applications indicated.

1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. ft. of cementitious materials. Reduce aggregate quantities accordingly to maintain workability.
- B.** Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:
 1. Portland Cement Mixes:
 - a. Scratch Coat: For cementitious material, mix 1 part Portland cement and 0 to 3/4 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material (sum of separate volumes of each component material).
 - b. Brown Coat: For cementitious material, mix 1 part Portland cement and 0 to 3/4 parts lime. Use 3 to 5 parts aggregate per part of cementitious material (sum of separate volumes of each component material).
- C.** Factory-Prepared Finish-Coat Mixes: For ready-mixed finish-coat plasters, comply with manufacturer's written instructions.

PART 3 - EXECUTION

0.1 EXAMINATION

- A.** Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance.
 1. Proceed with installation only after unsatisfactory conditions have been corrected.

0.2 PREPARATION

- A.** Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.

0.3 INSTALLING METAL LATH

- A.** Expanded-Metal Lath: Install according to ASTM C 1063.

0.4 INSTALLING ACCESSORIES

- A.** Install according to ASTM C 1063 and at locations indicated on Drawings.

B. Reinforcement for External Corners:

1. Install lath-type external-corner reinforcement at exterior locations.
2. Install cornerbead at interior and exterior locations.

C. Control Joints: Install control joints in specific locations approved by Engineer for visual effect as follows:

1. As required to delineate plasterwork into areas (panels) of the following maximum sizes:
 - a. Vertical Surfaces: 144 sq. ft.
 - b. Horizontal and other Nonvertical Surfaces: 100 sq. ft.
2. At distances between control joints of not greater than 18 feet o.c.
3. As required to delineate plasterwork into areas (panels) with length-to-width ratios of not greater than 2-1/2:1.
4. Where control joints occur in surface of construction directly behind plaster.
5. Where plasterwork areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

0.5 PLASTER APPLICATION

A. General: Comply with ASTM C 926.

1. Do not deviate more than plus or minus 1/4 inch in 10 feet from a true plane in finished plaster surfaces, as measured by a 10-foot straightedge placed on surface.
2. Grout hollow-metal frames, bases, and similar work occurring in plastered areas, with base-coat plaster material, before lathing where necessary. Except where full grouting is indicated or required for fire-resistance rating, grout at least 6 inches at each jamb anchor.
3. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground, unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.
4. Provide plaster surfaces that are ready to receive field-applied finishes indicated.

B. Plaster Finish Coats: Apply to provide finish to match Engineer's sample.

0.6 CUTTING AND PATCHING

A. Cut, patch, replace, and repair plaster as necessary to accommodate other work and to restore cracks, dents, and imperfections. Repair or replace work to eliminate blisters, buckles, crazing and check cracking, dry outs,

efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

0.7 CLEANING AND PROTECTION

- A. Remove temporary protection and enclosure of other work. Promptly remove plaster from doorframes, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

PART 4 - MEASUREMENT AND PAYMENT

0.1 MEASUREMENT

- A. Portland cement plaster will be measured as per square foot complete in place, including all preparation, accessories and incidentals.

0.2 PAYMENT

- A. Payment for Portland cement plaster will be made at the Contract unit price for the quantities as specified above.

0.3 PAYMENT

ITEM NO.	DESCRIPTION	UNIT
0917.100	PORTLAND CEMENT PLASTERING	SF

END OF SECTION